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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,087	11/06/2001	Jay R. Walton	PA010254	7477

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Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

CONTEE, JOY KIMBERLY

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/993,087

Applicant(s)

WALTON ET AL.

Examiner

Joy K Contee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-51 have been considered but are moot in view of the new ground of rejection.
2. Examiner notes that the previous Double Patenting rejection against application number 09/956,449 (or US Publication No. 2003/0003880) has not yet been assigned a US. Patent Number (notice of allowance was mailed on June 30, 2005).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-51 are rejected under 35 U.S.C. 102(e) as being anticipated by Wallace et al. (Wallace), U.S. Patent No. 6,473,467.

The applied reference has a common inventor and assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this

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application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1-49, Wallace discloses a method for transmitting data in a multiple-access multiple-input multiple-output (MIMO) communication system, comprising:

selecting one or more terminals for data transmission, wherein the selecting is performed using a spatial multiplexing multiple-access scheduling scheme (reads on multi-user, multiple access communication scheme capable of supporting subscriber units having different requirements/capabilities wherein features are achieved by employing spatial diversity, see col. 4, line 64 to col. 5, lines 1-5 and 47-67); receiving channel state information (CSI) indicative of channel conditions for the one or more selected terminals, processing data for the one or more selected terminals based on the received CSI to provide a plurality of modulated signals, transmitting the plurality of modulated signals via a plurality of transmit antennas to the one or more selected terminals (see col. 3, lines 34- col. 12, line 14 and see Figs. 1, 3 and 6).

Regarding claim 50, Wallace discloses the base station in a multiple-access multiple-input multiple-output (MIMO) communication system, comprising: an inherent scheduler operative to select one or more terminals for data transmission, wherein the selecting is performed using a spatial multiplexing multiple-access scheduling scheme (reads on multi-user, multiple access communication scheme capable of supporting subscriber units having different requirements/capabilities wherein features are achieved by employing spatial diversity, see col. 4, line 64 to col. 5, lines 1-5 and 47-67);

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a controller operative to receive channel state information (CSI) indicative of channel conditions for the one or more selected terminals and to provide one or more controls based on the received CSI; a TX data processor operative to process data for the one or more selected terminals based on the one or more controls to provide a plurality of modulation symbol streams; a modulator operative to generate a plurality of modulated signals for the plurality of modulation symbol streams; and a plurality of transmit antennas configured to transmit the modulated signals to the one or more selected terminals, (see col. 3, lines 34- col. 12, line 14 and see Figs. 1, 3 and 6).


Regarding claim 51, Wallace discloses a base station in a multiple-access multiple-input multiple-output (MIMO) communication system, comprising: means for selecting one or more terminals for data transmission; means for receiving channel state information (CSI) indicative of channel conditions for the one or more selected terminals and for providing one or more controls based on the received CSI, wherein the selecting is performed using a spatial multiplexing multiple-access scheduling scheme (reads on multi-user, multiple access communication scheme capable of supporting subscriber units having different requirements/capabilities wherein features are achieved by employing spatial diversity, see col. 4, line 64 to col. 5, lines 1-5 and 47-67); means for processing data for the one or more selected terminals based on the one or more controls to provide a plurality of modulation symbol streams; means for generating a plurality of modulated signals for the plurality of modulation symbol streams; and means for transmitting the modulated signals to the one or more selected terminals (see col. 3, lines 34- col. 12, line 14 and see Figs. 1, 3 and 6).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joy K Contee whose telephone number is 571.272.7906. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m.

6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571.272.7905. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JOY K. CONTEE
PATENT EXAMINER
JC

7/11/05